## **Recovery Plan Action Status**

Plan Name: Recovery Plan for the Morro Shoulderband Snail and Four Plants from San Luis Obispo County

Plan Status: Final Plan Date: 28-Sep-98 Lead Agency: USFWS

Lead Office: Ventura Fish And Wildlife Office 644-1766)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Morro manzanita (Arctostaphylos morroensis), Indian Knob mountain balm (Eriodictyon altissimum)	1	1.1.1	Secure primary sites for Morro Bay species	Partially Complete	FY 1995 - FY 1999		California Department of Parks and Recreation, San Luis Obispo County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Acquisition	Internal Administrative, Internal Technical Assistance	Information is for snail, Pismo clarkia, and Chorro Creek bog thistle
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Morro manzanita (Arctostaphylos morroensis), Indian Knob mountain balm (Eriodictyon altissimum)	2	2.1.1.1	Develop and implement strategies to control or eliminate illegal OHV use	Complete	FY 1995 - FY 1999		Department of Parks and Recreation, U.S. Fish and Wildlife Service, California	Management: Habitat Maintenance and Manipulation, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Technical Assistance	Information for snail

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Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Morro manzanita (Arctostaphylos morroensis), Indian Knob mountain balm (Eriodictyon altissimum)	2	2.1.1.2	Develop and implement strategies to control non-native plant species	Ongoing Current	FY 2000 - FY 2004		California Department of Parks and Recreation	Management: Habitat Maintenance and Manipulation	Internal Field Assistance	jmv 12-05 from draft cdpr hcp (2004): park ecologist (montana de oro and morro bay) annually prioritizes treatment areas on a case by case basis and conducts the control as a specific restoration project; in these parks there is a containment program for eucalyptus to control the spread of seedlings. in addition, cdpr "shall pursue a longrange objective of controlling, or eradicating where possible, exotic plants that have become established. the highest priority for control efforts shall be given to those species most invasive and conspicuous in the landscape."
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Morro manzanita (Arctostaphylos morroensis), Indian Knob mountain balm (Eriodictyon altissimum)	2	2.1.1.3.1	Develop and implement prescribed burn plan	Partially Complete	FY 1995 - FY 1999		California Department of Parks and Recreation, California Department of Fish and Game	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	Information for snail
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Morro manzanita (Arctostaphylos morroensis), Indian Knob mountain balm (Eriodictyon altissimum)	3	2.1.1.3.2	Develop and implement strategy for wildfire suppression	Not Started			California Department of Parks and Recreation, California Department of Fish and Game, To be determined	Management: Habitat Maintenance and Manipulation, Management: Planning	Contract	

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Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Morro manzanita (Arctostaphylos morroensis), Indian Knob mountain balm (Eriodictyon altissimum)	2	3.1.1	Determine methods to control non- native plant species	Unknown			California Department of Parks and Recreation, San Luis Obispo County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game, Non- governmental organizations	Management: Habitat Maintenance and Manipulation, Other: Administration	Contract, Internal Technical Assistance	jmv 12-05. see 2.1.1.2 above Information for Pismo clarkia and Chorro Creek bog thistle
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Morro manzanita (Arctostaphylos morroensis), Indian Knob mountain balm (Eriodictyon altissimum)	2	3.1.2	Determine methods to maintain a mosaic of vegetation communities	Unknown			California Department of Parks and Recreation, San Luis Obispo County, California, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management: Habitat Maintenance and Manipulation, Other: Administration	Contract, Internal Technical Assistance	Information for Pismo clarkia and Chorro Creek bog thistle
Indian Knob mountain balm (Eriodictyon altissimum)	2	3.2.1.4	Study the reproductive biology and the response to fire of the mountainbalm	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Other Information	Contract, Graduate Student, Species Expert	
Indian Knob mountain balm (Eriodictyon altissimum)	2	3.2.1.5	Determine if small populations of the mountain balm are multiclonal	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: General	Contract, Graduate Student, Species Expert	
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Pismo clarkia (Clarkia speciosa ssp. immaculata), Chorro Creek bog thistle (Cirsium fontinale var. obispoense), Indian Knob mountain balm (Eriodictyon altissimum)	2	4.1	Monitor populations to ascertain trends	Unknown			California Army National Guard, California Department of Parks and Recreation, U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Demographic Studies	Contract, Internal Field Assistance, Species Expert	Information for Pismo clarkia and Chorro Creek bog thistle. Not yet started for snail.

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Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Pismo clarkia (Clarkia speciosa ssp. immaculata), Morro manzanita (Arctostaphylos morroensis), Chorro Creek bog thistle (Cirsium fontinale var. obispoense), Indian Knob mountain balm (Eriodictyon altissimum)	2	4.2	Evaluate effectiveness of methods used to reduce threats	Unknown			U.S. Fish and Wildlife Service	Other: Regulations	Contract, Internal Technical Assistance, Species Expert	Information for Pismo clarkia and Chorro Creek bog thistle. Not started for snail.
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Pismo clarkia (Clarkia speciosa ssp. immaculata), Morro manzanita (Arctostaphylos morroensis), Chorro Creek bog thistle (Cirsium fontinale var. obispoense), Indian Knob mountain balm (Eriodictyon altissimum)	3	5.1	Inform and consult with local lead agencies	Unknown			California Department of Parks and Recreation, U.S. Fish and Wildlife Service, California Department of Fish and Game	Management: General	Internal Technical Assistance	jmv 12-05. the service issued an intra-service biological opinion on the effects of prescribed burning in the vicinity of morro bay (1-8-99-FW-1) on october 20, 1998. it authorizes cdpr to conduct experimental prescribed burns in habitat tha contains morro shoulderband snail, morro manzanita, and indian knob mountain balm. Status is unknown for Pismo clarkia and Chorro Creek bog thistle. Ongoing current for snail.

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Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Pismo clarkia (Clarkia speciosa ssp. immaculata), Morro manzanita (Arctostaphylos morroensis), Chorro Creek bog thistle (Cirsium fontinale var. obispoense), Indian Knob mountain balm (Eriodictyon altissimum)	3	5.2.2	Discourage plantings of other sp. Of manzanitas in Los Osos	Not Started			California Department of Parks and Recreation, San Luis Obispo County, California, California Department of Fish and Game	Management: Habitat Maintenance and Manipulation, Other: Information and Education	Internal Field Assistance, Species Expert, Volunteer	
Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Pismo clarkia (Clarkia speciosa ssp. immaculata), Morro manzanita (Arctostaphylos morroensis), Chorro Creek bog thistle (Cirsium fontinale var. obispoense), Indian Knob mountain balm (Eriodictyon altissimum)	3	5.2.3	Encourage landscaping with local native vegetation	Unknown			U.S. Fish and Wildlife Service, California Department of Fish and Game, Non- governmental organizations	Other: Administration	Internal Technical Assistance	Status is unknown for Pismo clarkia and Chorro Creek bog thistle. Status for snail is Obsolete. For the snail, several products have been put out for the general public and work continues; however, we are trying to reduce movement of snails from undisturbed habitat into urban areas to minimize adverse effects to the snail.

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Morro shoulderband (=Banded dune) snail (Helminthoglypta walkeriana), Pismo clarkia (Clarkia speciosa ssp. immaculata), Morro manzanita (Arctostaphylos morroensis), Chorro Creek bog thistle (Cirsium fontinale var. obispoense), Indian Knob mountain balm (Eriodictyon altissimum)	2	6.2	Revise recovery plan	Not Started			California Department of Parks and Recreation, U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Regulations	Contract, Internal Technical Assistance, Species Expert	Information for Pismo clarkia and Chorro Creek bog thistle